

2 DAS
27
9-89
AUG 15 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Work Order ID 164876

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164876

Page 2

Item ID: D350-836-019**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop *NS2*****Item Name:** Crosstube Antenna Mount AS350 / AS355**Start Date:** 8/14/2017 **Start Qty:** 2.00 ***2*****Cust Item ID:****Required Date:** 8/16/2017 **Req'd Qty:** 2.00 ***2*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: _____	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D350-836-019 Location: _____ PPP Rev: _____								
140	QC21 - Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.20							
Quality Control									

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Misabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____							
Misidentified ☐	☐ Past Due								

Picklist Print

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Page 1

Work Order ID: 164876

164876

Parent Item: D350-836-019

D350-836-019

Parent Item Name: Crosstube Antenna Mount AS350 / AS355

Start Date: 8/14/2017

Required Date: 8/16/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 13.07.18 AS PER ECN13-561 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4853-1 *D4853-1* Top Bracket DAS 27 9-89		Manufactured	No			110	Each	12.0000	1	2		AUG 10 2017	DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				ST519				12		2			
				161854				12					
D4854-1 *D4854-1* Lower Bracket DAS 27 9-89		Manufactured	No			110	Each	0.0000	1	2		AUG 10 2017	DAS 28 9-89
D4855-1 *D4855-1* Antenna Bracket DAS 27 9-89		Manufactured	No			110	Each	6.0000	1	2		AUG 14 2017	DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				st526				6		2			
				163434				6					
D2732-030 *D2732-030* Rubber Cushion - 3" DAS 27 9-89		Manufactured	No			110	Each	528.0000	2	4		AUG 10 2017	DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				FG				100					
				158347				100					
				ST410				428		4			
				162952				28					
				164308				200					
				164309				200					

DQA: _____ Date: _____



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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

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Work Order ID: 164876

164876

Parent Item: D350-836-019

D350-836-019

Parent Item Name: Crosstube Antenna Mount AS350 / AS355

Start Date: 8/14/2017

Required Date: 8/16/2017

Start Qty: 2.00

Required Qty: 2.00

AN4-16A Purchased No

110 Each 126.0000 2 4

AN4-16A

Bolt

**

AUG 10 2017

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

5

121541

5

over003

100

m138209

100

ST343

21

m138040

21

4

AN4-11A Purchased No

110 Each 70.0000 2 4

AN4-11A

BOLT

**

AUG 10 2017

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

20

120731

20

over003

50

M138170

50

4

NAS1149D0432J Purchased No

110 Each 921.0000 8 16

NAS1149D0432.J

WASHER

**

AUG 10 2017

DAS
28
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DAS
27
9-89

Location

Loc Qty

Loc Code

GA

24

m131026

24

ST264

897

m137459

897

16

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

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Work Order ID: 164876

164876

Parent Item: D350-836-019

D350-836-019

Parent Item Name: Crosstube Antenna Mount AS350 / AS355

Start Date: 8/14/2017

Required Date: 8/16/2017

Start Qty: 2.00

Required Qty: 2.00

MS21042L4

Purchased

No

110

Each

3,172.000

4

8

MS21042L4

**

Nut

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

1

m135058

1

OVER007

2000

m138084

1000

m138170

500

m138230

500

ST303

1161

m137680

161

m137988

1000

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

5. PARTS LIST

Qty -019	Qty -111	Part Number	Description
X		D350-836-019	CROSSTUBE ANTENNA MOUNT KIT AS350/355 (P162-350)
	X	D206-836-111	CROSSTUBE ANTENNA MOUNT KIT UNIVERSAL (P162-U)
1	1	D4853-1	TOP BRACKET (REPLACES P/N G13013-1)
	1	D4853-3	TOP BRACKET (REPLACES P/N G13013-5)
	1	D4853-5	TOP BRACKET (REPLACES P/N G13013-7)
	1	D4853-7	TOP BRACKET (REPLACES P/N G13013-9)
1	1	D4854-1	LOWER BRACKET (REPLACES P/N G13013-2)
	1	D4854-3	LOWER BRACKET (REPLACES P/N G13013-6)
	1	D4854-5	LOWER BRACKET (REPLACES P/N G13013-8)
	1	D4854-7	LOWER BRACKET (REPLACES P/N G13013-10)
1	1	D4855-1	ANTENNA BRACKET (REPLACES P/N G13013-3)
2	2	D2732-030	RUBBER CUSHION (REPLACES P/N G13013-4)
2	2	AN4-16A	BOLT
2	2	AN4-11A	BOLT
8	8	NAS1149D0432J	WASHER
4	4	MS21042L4	LOCKNUT

164876

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Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 8/14/2017 **Start Qty:** 2.00

~

Cust Item ID:

Required Date: 8/16/2017 **Req'd Qty:** 2.00

2

Customer:

Reference:

Date: _____ **Tooling:** _____

Date:

Run Start *NR1*

QC:

Date: AUG 04 2017 SPC (Y/N):

Date:

Stop *NR2*

[illegible]

United States of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SR02253SE

This certificate, issued to

Dart Aerospace USA, Inc.
190 S. Danebo Ave.
Eugene, OR 97402

*certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

Original Product—Type Certificate Number: * See attached Federal Aviation Administration (FAA)
Make: Approved Model List (AML) SR02253SE for a list of
Model: approved models and applicable airworthiness regulations

Description of the Type Design Change: Fabrication of Geneva Aviation P162 Cross-Tube Antenna Mounts in accordance with Master Drawing List GA202, Revision "--," dated September 30, 2011, or later FAA-approved revision; and installation and maintenance of this assembly in accordance with the documents shown on AML SR02253SE.

This supplemental type certificate does not include approval or installation of any antenna.

Limitations and Conditions: Approval of this change in type design applies to the rotorcraft listed in AML SR02253SE only. This approval should not be extended to other rotorcraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of the other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that helicopter. A copy of this certificate, AML SR02253SE, and the appropriate Instructions for Continued Airworthiness as listed on AML SR02253SE, must be maintained as part of the permanent records of the modified rotorcraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 30, 2012

Date reissued: January 16, 2013; October 28, 2015

Date of issuance: December 21, 2012

Date amended:



By direction of the Administrator

Audra Brown
(Signature)
for Manager, Seattle Aircraft Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.